

No.

200100018

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Buck Semillas S.A.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE VARIETY. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT, COMMON

'Caudillo'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this twelfth day of September, in the year two thousand one.

Attest:

Paul M. Jenkins

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

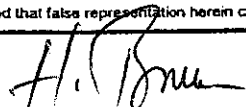
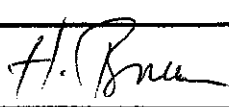
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

| | | | | | |
|--|--|--|--|---|--|
| 1. NAME OF OWNER Buck Semillas S.A. | | 2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME TB 1071 | | 3. VARIETY NAME CAUDILLO | |
| 4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) 7637 La Dulce PDO. De Necochea Prov. Buenos Aires Argentina | | 5. TELEPHONE (include area code) 54-2262-434061 | | FOR OFFICIAL USE ONLY PVPO NUMBER 20010001 FILING DATE 10-27-2000 | |
| | | 6. FAX (include area code) 54-2262-434061 | | | |
| 7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) Corporation | | 8. IF INCORPORATED, GIVE STATE OF INCORPORATION Buenos Aires, Arg. | | 9. DATE OF INCORPORATION January 1, 2000 | |
| 10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) Dr. Robert W. Romig TRIGEN Seed Services LLC 8024 Telegraph Road Bloomington, MN 55438 | | | | FILING AND EXAMINATION FEES: \$ 2705.00 DATE 10-27-2000 CERTIFICATION FEE: \$ 320.00 DATE 8/10/01 | |
| 11. TELEPHONE (include area code) 952-829-7740 | | 12. FAX (include area code) 952-829-8020 | | 13. E-MAIL bobromig@AOL.com | |
| 14. CROP KIND (Common Name) Wheat | | 15. GENUS AND SPECIES NAME OF CROP Triticum Aestivum L. | | 16. FAMILY NAME (Botanical) Gramineae | |
| 17. IS THE VARIETY A FIRST GENERATION HYBRID? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | | 18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse) | | | |
| a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$2,450), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office) | | 19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? See Section 83(a) of the Plant Variety Protection Act <input checked="" type="checkbox"/> YES (If "yes", answer items 20 and 21 below) <input type="checkbox"/> NO (If "no," go to item 22) | | | |
| 20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | 21. IF "YES" TO ITEM 20, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED? <input checked="" type="checkbox"/> FOUNDATION <input checked="" type="checkbox"/> REGISTERED <input checked="" type="checkbox"/> CERTIFIED | | | |
| 22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES? <input checked="" type="checkbox"/> YES Argentina <input type="checkbox"/> NO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.) | | 23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.) | | | |
| 24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties. | | | | | |
| SIGNATURE OF OWNER  | | SIGNATURE OF OWNER  | | | |
| NAME (Please print or type) Hilda T. Buck | | NAME (Please print or type) Hilda T. Buck | | | |
| CAPACITY OR TITLE Biologist President of Buck Semillas | | DATE | | CAPACITY OR TITLE Biologist President of Buck Semillas | |
| DATE | | DATE | | | |

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$2,450 (\$300 filing fee and \$2,150 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfilled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 500, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$300 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office

Telephone: (301) 504-5518

FAX: (301) 504-5291

Homepage: <http://www.ams.usda.gov/science/pvp.htm>

ITEM

- 18a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) evidence of uniformity and stability; and (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
- (1) identify these varieties and state all differences objectively;
 - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
 - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness
- 18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
19. If "Yes" is specified (seed of this variety be sold by variety name only, as a class of certified seed), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
22. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
23. See Section 5.5 of the Act for instructions on claiming the benefit of an earlier filing date.

22. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

Date of first sale: April 27, 1998. Argentina

(D.A.V. N^o 42642)

23. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

Argentina, March 16, 1998 (RNC 5423). Tit. RNPC 1049

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

To avoid conflict with other variety names in use, the applicant must check the variety names proposed by contacting: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center-East, Beltsville, MD 20705. Telephone: (301) 504-8089.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, OIRM, AG Box 7630, Jamie L. Whitten Building, Washington, D.C. 20250. When replying, refer to OMB No. 0581-0055 and form number in your letter. Under the PRA of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

The U.S. Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (braille, large print, audiotape, etc.) should contact the USDA Office of Communications at (202) 720-2791. To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call (202) 720-7327 (voice) or (202) 720-1127 (TDD). USDA is an equal opportunity employer.

5&T-470 (6-98) designed by the Plant Variety Protection Office with WordPerfect 6.0a. Replaces STD-470 (03-96) which is obsolete.

Exhibit A (Amended) Origin and Breeding History of 'Caudillo'

The variety 'Caudillo' is derived from a cross Buck Poncho sib/Buck Charrua sib made in 1985 at the José Buck S. A. breeding station La Dulce in Buenos Aires Province, Argentina. Progeny from the cross were advanced by individual plant selections from the F₂ to F₆ generations during the 1987 to 1991 period following a pedigree method of breeding. The principal selection criteria during this period were resistance to stripe rust (*Puccinia striiformis* Westen.), resistance to leaf rust (*P. recondita* Rob. ex Desm. f. sp. *tritici*) and facultative growth habit. During the trial phase of development, selection for yield, test weight and bread making quality were made among the sister lines derived from the cross. The pedigree of 'Caudillo' is 15461-5-4-32-2-1.

The multiplication process began with the planting of 50 individual head-rows in 1993. Seed from true to type and uniform rows was bulked after harvest. This was followed by an increase of 200 square meters in 1994, a 0.5 hectare increase in 1995, then a 20 hectare increase in 1996 and finally, several hundred hectares in 1997 for seed sales in May of 1998. The production lots were rogued at heading and at maturity to remove any off-types during each stage of multiplication.

'Caudillo' was inscribed in the Argentine National Registry of Cultivars on 17 March 1998 (RNC 5423). The variety first entered commerce in April 1998 when the first advertisement offering the variety for sale appeared. The variety has been licensed to Ceres Agropecuaria for distribution in Argentina and to Trigen Seed Services LLC (TGS) for distribution in the United States. On January 1, 2000, the company José Buck S.A. reorganized, whereupon the seed business became structured as Buck Semillas S.A.

TGS received a 100 gm sample of the variety from José Buck S.A. as experimental line 1071 in early 1995. We planted a row of this line at Somerton, Arizona for observation and increase and included it in a preliminary performance trial at a nursery site near San Antonio, Texas in the 1995-1996 growing season. In the 1996-1997 season, we planted a two-row plot in Somerton, Arizona for observation and increase and included the line in a performance trial in our South Texas nursery with seed harvested by hand the previous year in Arizona.

In the 1997-1998 season, we grew a one acre increase of pre-breeder seed of line 1071 in our South Texas nursery. This lot was uniform and no variants were seen. In the 1998-1999 season, we produced a 50-acre increase of breeder seed from our pre breeder seed under contract for a flat service fee per acre. There was no charge for or sale of the planting seed. That is, there was no change of title of the seed used to plant this production. This field was also quite uniform and no variants were seen.

Exhibit A (Amended, Cont'd)
Origin and Breeding History of 'Caudillo'

The contracts for production of Foundation Class seed were signed in November of 1999. These include an in kind cost for the planting seed for settlement after harvest. Thus, 'Caudillo' was first offered for sale in the United States in November 1999.

No variants have been seen in trials and in production fields in the U.S. during each of the growing seasons from 1995-1996 to 2000-2001. Thus, "Caudillo" has been uniform and stable for five generations when grown in the U. S. Buck Semillas S. A. also reports the variety has been uniform and stable during five generations in Argentina. From this evidence, we conclude that "Caudillo" is a uniform and stable variety.

The Texas State Seed and Plant Board approved Caudillo for certification at a January 31, 2000 meeting.

Exhibit B
Statement of Distinction

'Caudillo' most closely resembles the variety Buck Arrayan but differs in that the glumes are mid wide while those of Buck Arrayan are wide. The seed shape of Caudillo is elliptical whereas that of Buck Arrayan is ovoid.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, OIRM, AG Box 7630, Jamie L. Whitten Building, Washington, D.C. 20250. When replying, refer to OMB No. 0581-0055 and form number in your letter. Under the PRA of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

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AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

EXHIBIT C
(Wheat)

OBJECTIVE DESCRIPTION OF VARIETY
WHEAT (*Triticum* spp.)

| | |
|---|---------------------------------------|
| NAME OF APPLICANT(S) <u>TRIGEN SEED SERVICES LLC FOR BUCKSEMIILLAS</u> | FOR OFFICIAL USE ONLY |
| ADDRESS (Street and No. or RD No., City, State, and Zip Code) <u>8024 TELEGRAPH RD BLOOMINGTON, MN 55438</u> | PVPO NUMBER <u>200100018</u> |
| | VARIETY NAME |
| | TEMPORARY OR EXPERIMENTAL DESIGNATION |

PLEASE READ ALL INSTRUCTIONS CAREFULLY: Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in the first box (e.g. or) when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties entered in the same trial. Royal Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used: Please answer all questions for your variety; lack of response may delay progress of your application.

1. KIND:

 1

1=Common

2=Durum

3=Club

4=Other (SPECIFY):

2. VERNALIZATION:

 3

1=Spring

2=Winter

3=Other (SPECIFY): INTERMEDIATE

3. COLEOPTILE ANTHOCYANIN:

 1

1=Absent

2=Present

4. JUVENILE PLANT GROWTH:

 2

1=Prostrate

2=Semi-erect

3=Erect

5. PLANT COLOR (boot stage):

 2

1 = Yellow-Green

2 = Green

3 = Blue-Green

6. FLAG LEAF (boot stage):

 2

1 = Erect

2 = Recurved

1 = Not Twisted

2 = Twisted

7. EAR EMERGENCE:

Number of Days Earlier Than

Number of Days Later Than TAM 201

8. ANTHOR COLOR:

☐ 1

1 = Yellow

2 = Purple

9. PLANT HEIGHT (from soil to top of head, excluding awns):

☐ 0 ☐ 5cm Taller Than TAM 201 *☐ ☐

cm Shorter Than _____ *

* Relative to a PVPO-Approved Commercial Variety Grown in the Same Trial

10. STEM:

A. ANTHOCYANIN

☐ 1

1 = Absent

2 = Present

B. WAXY BLOOM

☐ 1

1 = Absent

2 = Present

C. HAIRINESS (last internode of rachis)

☐ 1

1 = Absent

2 = Present

D. INTERNODE (SPECIFY NUMBER) 4☐ 1

1 = Hollow

2 = Semi-solid

3 = Solid

E. PEDUNCLE

☐ 2

1 = Absent

2 = Present

☐

cm Length

11. HEAD (at Maturity):

A. DENSITY

☐ 1

1 = Lax

2 = Middense

3 = Dense

B. SHAPE

☐ 2

1 = Tapering

2 = Strap

3 = Clavate

4 = Other (SPECIFY): _____

C. CURVATURE

☐ 2

1 = Erect

2 = Inclined

3 = Recurved

D. AWNEDNESS

☐ 4

1 = Awnless

2 = Apically Awnletted

3 = Awnletted

4 = Awned

12. GLUMES (at Maturity):

A. COLOR

☐ 1

1 = White

2 = Tan

3 = Other (SPECIFY): _____

C. BEAK

☐ 3

1 = Obtuse

2 = Acute

3 = Acuminate

B. SHOULDER

☐ 3

1 = Wanting

2 = Oblique

3 = Rounded

4 = Square

5 = Elevated

6 = Apiculate

D. LENGTH

☐ 3

1 = Short

2 = Medium

(ca. 7mm)

(ca. 8mm)

3 = Long (ca. 9mm)

12. GLUMES (at Maturity) *Continued*:

E. WIDTH

☒ 1 = Narrow (ca. 3mm) 2 = Medium (ca. 3.5mm)
3 = Wide (ca. 4mm)

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13. SEED:

A. SHAPE

☒ 1 = Ovate 2 = Oval 3 = Elliptical

C. BRUSH

☒ 1 = Short 2 = Medium 3 = Long
☒ 1 = Not Collared 2 = Collared

B. CHEEK

☒ 1 = Rounded 2 = Angular

D. CREASE

☒ 1 = Width 60% or less of Kernel
2 = Width 80% or less of Kernel
3 = Width Nearly as Wide as Kernel

☒ 1 = Depth 20% or less of Kernel
2 = Depth 35% or less of Kernel
3 = Depth 50% or less of Kernel

E. Color

☒ 1 = White 2 = Amber 3 = Red
4 = OTHER (Specify)

G. PHENOL REACTION (see instructions):

☒ 1 = Ivory 2 = Fawn
3 = Light Brown 4 = Dark Brown
5 = Black

F. TEXTURE

☒ 1 = Hard 2 = Soft

14. DISEASE: (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE INDICATE THE SPECIFIC RACE OR STRAIN TESTED

| | |
|--|---|
| <input checked="" type="checkbox"/> Stem Rust (<i>Puccinia graminis</i> f. sp. <i>tritici</i>) FIELD + RTQR, OTHY, PTHS, RIKPQ, PRMS, RPQR, QCLT, HFCQ, QFCQ, RCS, | <input checked="" type="checkbox"/> Leaf Rust (<i>Puccinia recondita</i> f. sp. <i>tritici</i>) THBL, MCRL, MBGQ, MCDL, SCDB, TCR, FCMR, SBTL, TMGL |
| <input type="checkbox"/> Stripe Rust (<i>Puccinia striiformis</i>) TTRS, + TPMK | <input type="checkbox"/> Loose Smut (<i>Ustilago tritici</i>) |
| <input type="checkbox"/> Tan Spot (<i>Pyrenophora tritici-repentis</i>) | <input type="checkbox"/> Flag Smut (<i>Urocystis agropyri</i>) |
| <input type="checkbox"/> Halo Spot (<i>Selenophoma donacis</i>) | <input type="checkbox"/> Common Bunt (<i>Tilletia tritici</i> or <i>T. laevis</i>) |
| <input type="checkbox"/> <i>Septoria nodorum</i> (Glume Blotch) | <input type="checkbox"/> Dwarf Bunt (<i>Tilletia controversa</i>) |
| <input type="checkbox"/> <i>Septoria avenae</i> (Speckled Leaf Disease) | <input type="checkbox"/> Karnal Bunt (<i>Tilletia indica</i>) |
| <input type="checkbox"/> <i>Septoria tritici</i> (Speckled Leaf Blotch) | <input type="checkbox"/> Powdery Mildew (<i>Erysiphe graminis</i> f. sp. <i>tritici</i>) |
| <input checked="" type="checkbox"/> Scab (<i>Fusarium</i> spp.) | <input type="checkbox"/> "Snow Molds" |

14. Disease (Continued) (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE INDICATE THE SPECIFIC RACE OR STRAIN TESTED

| | |
|---|---|
| <input checked="" type="checkbox"/> "Black Point" (Kernel Smudge) | <input type="checkbox"/> Common Root Rot (<i>Fusarium</i> , <i>Cochliobolus</i> and <i>Bipolaris</i> spp.) |
| <input type="checkbox"/> Barley Yellow Dwarf Virus (BYDV) | <input type="checkbox"/> Rhizoctonia Root Rot (<i>Rhizoctonia solani</i>) |
| <input type="checkbox"/> Soilborne Mosaic Virus (SBMV) | <input type="checkbox"/> Black Chaff (<i>Xanthomonas campestris</i> pv. <i>translucens</i>) |
| <input type="checkbox"/> Wheat Yellow (Spindle Streak) Mosaic Virus | <input type="checkbox"/> Bacterial Leaf Blight (<i>Pseudomonas syringae</i> pv. <i>syringae</i>) |
| <input type="checkbox"/> Wheat Streak Mosaic Virus (WSMV) | <input type="checkbox"/> Other (SPECIFY) |
| <input type="checkbox"/> Other (SPECIFY) | <input type="checkbox"/> Other (SPECIFY) |
| <input type="checkbox"/> Other (SPECIFY) | <input type="checkbox"/> Other (SPECIFY) |
| <input type="checkbox"/> Other (SPECIFY) | <input type="checkbox"/> Other (SPECIFY) |

15. INSECT: (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE SPECIFY BIOTYPE (where needed)

| | |
|--|--|
| <input type="checkbox"/> Hessian Fly (<i>Mayetiola destructor</i>) | <input type="checkbox"/> Other (SPECIFY) |
| <input type="checkbox"/> Stem Sawfly (<i>Cephus</i> spp.) | <input type="checkbox"/> Other (SPECIFY) |
| <input type="checkbox"/> Cereal Leaf Beetle (<i>Oulema melanopa</i>) | <input type="checkbox"/> Other (SPECIFY) |
| <input type="checkbox"/> Russian Aphid (<i>Diuraphis noxia</i>) | <input type="checkbox"/> Other (SPECIFY) |
| <input type="checkbox"/> Greenbug (<i>Schizaphis graminum</i>) | <input type="checkbox"/> Other (SPECIFY) |
| <input type="checkbox"/> Aphids | <input type="checkbox"/> Other (SPECIFY) |

16. ADDITIONAL INFORMATION ON ANY ITEM ABOVE, OR GENERAL COMMENTS

Exhibit D
Additional Description of 'Caudillo'

'Caudillo' is a semi-dwarf variety with an intermediate or facultative growth habit. It has very little winter hardiness so its best area of adaptation is in South Texas in the zone of transition from the spring wheat area and the winter wheat area. Straw strength is about average but it has better resistance to lodging than 'Mit'.

Seedling reactions of 'Caudillo' to leaf rust (*Puccinia recondite* Rob. ex Desm. f. sp. *Tritici*) and to stem rust (*P. graminis* Pers. f. sp. *tritici* Eriks. & Henn.) are presented in Table 1. It has been resistant in the adult stage to races of leaf and stem rust in South Texas prevalent during the period of its performance evaluation and multiplication.

The variety "Caudillo" has vitreous kernels, good test weight and good grain protein. Quality characteristics for bread are somewhat better than those of TAM 201. Milling and baking data from a Lytle, Texas 1998 sample are presented in Table 2. Figure 1 shows a Brabender farinograph curve and Figure 2 shows a Chopin alveograph curve of the variety.

Table 1. Seedling reaction of 'Caudillo' to races of leaf- and stem rust*.

| Leaf Rust Race | Reaction | Stem Rust Race | Reaction |
|----------------|----------|----------------|----------|
| THBL | ;1C3 | RTQQ | 2= |
| MCRL | ;1C2 | QTHU | ;1 |
| MBGQ | ;1C2 | PTHS | 2- |
| MCDL | : | RKPQ | ;1- |
| SCDB | : | RRMS | ;11+N |
| TCRL | ;1C2 | RPQQ | 2-1 |
| FCMQ | : | QCCJ | 0;1- |
| SBJL | 1C | HPCQ | 2 |
| MGDL | 1C | QFCQ | ;1N |
| | | RCRS | 1- |
| | | TTRS | 2- |
| | | TPMK | 2- |

* Data provided by USDA Cereal Rust Laboratory, St. Paul, MN

Table 2. Quality Comparisons of 'Caudillo' and TAM 201, Lyttle, Texas 1998*.

| Trait | Caudillo Value | TAM 201 Value |
|----------------------------|---------------------------|--------------------------|
| Wheat Analysis | | |
| Grain Protein, % | 12.9 | 11.8 |
| Ash, % | 1.63 | 1.5 |
| Wheat Hardness NIR | 97 | 89 |
| Test Weight, lb/bu | 62.3 | 61.8 |
| 1,000 Kernel Weight, grams | 33.2 | 31.9 |
| Flour Analysis | | |
| Yield, % | 70.7 | 67.9 |
| Protein, % | 11.2 | 10.1 |
| Ash, % | 0.50 | 0.48 |
| Falling Number, sec | 326 | 365 |
| Wet Gluten, 14%MB | 29.4 | 27.7 |
| Bake Test | | |
| Volume, cc | 775 | 790 |

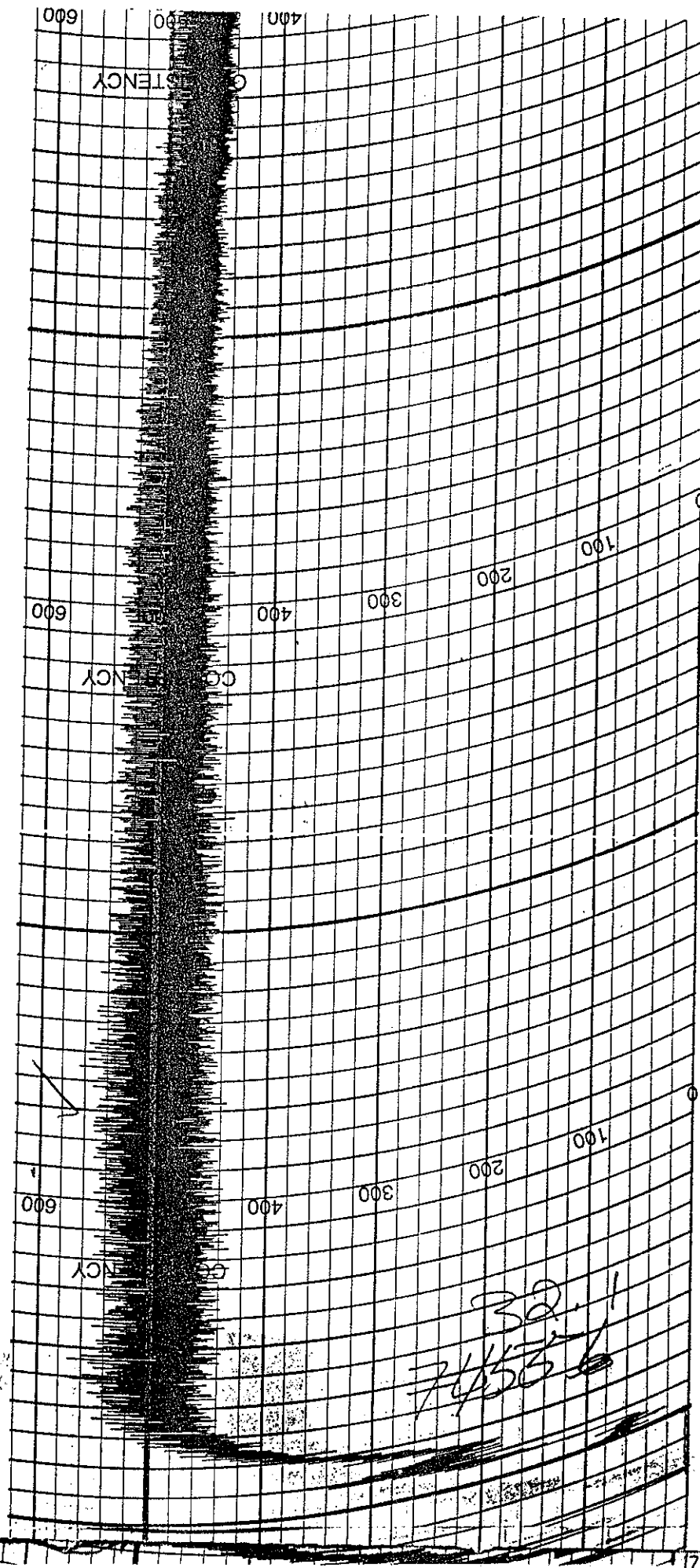
* Results from California Wheat Commission Laboratory, Woodland, CA

Caudillo' contains no wheat-rye chromosome translocations and no waxy genes.

Figure 1. Brabender Farinograph curve for 'Caudillo' Wheat, Lytle, Texas 1988 Sample.
California Wheat Commission

Firm _____
 Sample I.D. 74556 Date 11-13-98
 Absorption % 64.2 Arrival (min) 1.5
 Mixing Peak (min) 7 Departure (min) 23.5
 M.T.L. (B.U.) 10 M.T. (min) 22
 T.M.D. (B.U.) 20 Valorimeter 1

Caudillo



81000100018

Figure 2. Chopin Alveograph Curve for 'Caudillo' Wheat, Lytle, Texas 1998 Sample.

CHOPIN

ALVEOGRAPH

Test N° 74556 Date 11/11/98

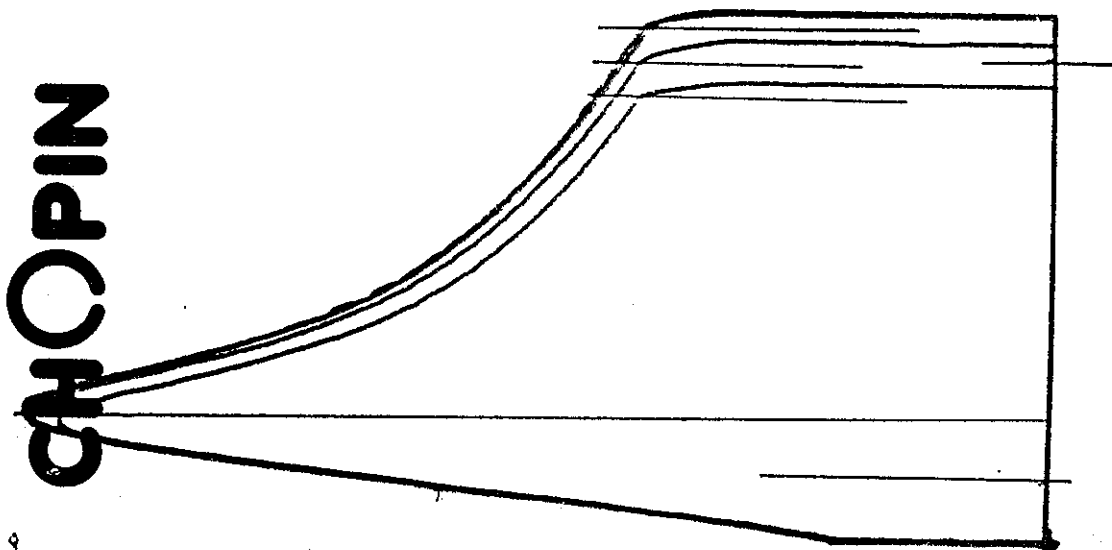
Subject CAUDILLO

Moisture content: 13.90 %
Temperature-Laboratory:

(Water addition
°C Relative humidity
ml.) %

$W = 6,54 \times S$ $\boxed{53.6}$ = $\boxed{350.5}$ $\times 10^{-4}$ joules

The coefficient 6.54 is valid for:
1° One rotation of the drum lasting
55 seconds from stop to stop
2° An air flow equivalent to 60 mm on
the manometer (ALVEO MA 82)
3° A manometer with coefficient 1.1
4° P200 corresponds to 200 ml
of insulated air in the bubble
(Wich corresponds to L = 40 mm)



200100018

Exhibit E
Statement of the Basis of Owner's Ownership

Ownership by Buck Semillas S. A. is based on the fact that Buck Semillas S. A. performed the cross from which the variety is derived. Subsequent selection and testing were also performed by Buck Semillas. Caudillo has been inscribed in the Argentine National Registry of Cultivars under the ownership of Buck Semillas S. A.